CLAIMS

1.   An expert system for optimizing health during pregnancy comprising:

        at least one database of pregnancy related health data including data representing time oriented information about pregnancy health complications;

5   at least one input for inputting diagnostic and screening data, including time oriented information about said diagnostic and screening data ; and

        at least one indicator for reporting a decision as a function of the inputted diagnostic and screening data and said pregnancy related heath data.

2.   The expert system of Claim 1, the system comprising:

10   a plurality of time oriented data menus, said data menus comprising categorically defined pregnancy related health conditions, said data menus being organized as a function of the pregnancy time period, said health complications being classified in said data menus.

3.   The expert system of Claim 2, wherein the categorically defined pregnancy conditions comprise:

15   inherited genetic abnormalities;

        fetal structural anomalies without detectable abnormal genetic pattern;

        idiopathic fetal malformations and diseases;

        fetal disease from pathology of physiology of mother;

        teratogenetic or other exposures; or

20   sporadic genetic mutations.

4.   The expert system of Claim 1 wherein said report of time oriented information comprises:

        data representing the earliest known time for detection of the health complication; or

        data representing a course of action regarding the complication;

        data representing the likelihood of such complication; or

data representing the class of a complication.

5.   The expert system of Claim 1, wherein the inputted diagnostic and screening data includes data from:

a diagnostic and screening tool;

a diagnostic and screening test; or

information garnered from a person reporting on a pregnancy; or

a report on the patient.

6.   The expert system of Claim 5, wherein the diagnostic and screening tool comprises:

an ultrasound pattern recognition device;

a genetic testing device;

a genetic counseling system;

a device for biochemical testing; or

a magnetic resonance device.

7.   The expert system of Claim 5, wherein the diagnostic and screening tests comprises:

a genetic test;

an ultrasound test; or

a biochemical test.

8.   The expert system of Claim 5, wherein the information garnered comprises:

information from a patient interview;

information provided by someone other than patient; or

information volunteered by a patient.

9.   The expert system of Claim 1, said system comprising an intelligent agent further comprising at least one algorithmic rule adapted to apply to data inputted into the intelligent agent, said rule designed to produce at least one decision about a pregnancy case.

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10.   The expert system of Claim 9, wherein said decision comprises:

 scheduling at least one action to be taken with respect to the complication, said action

including an action for screening for at least one said complication;

 treating said complication.

5 11.   The expert system of Claim 5, wherein the report on the patient comprises:

 a patient history.

12.   The expert system of Claim 1, wherein the input comprises:

 a scaled plotting tool for plotting said inputted diagnostic and screening data, wherein

the decision is a function of the plotted data.

10 13.   The expert system of Claim 4, the expert system further comprising:

 the intelligent agent, said agent being configured to accept said inputted diagnostic and

screening data and indicate the probability of the presence or absence of a pregnancy related

health complication.

14.   The expert system of Claim 1, said system comprising a computer executed program for

15 categorically indexing:

- inputted diagnostic and screening data; and

- database data

into any of said at least one said menus.

15.   The system of Claim 9, wherein said report indicates:

20 a weighted analysis as a function the intelligent agent indicating the presence, absence or

probability of the presence or absence of said complication; and

 a future action to be taken with respect to said weighted analysis.

16.   The expert system of Claim 15, wherein the future action is:

 at least one screening for at least one health complication; or

at least one treatment for at least one health complication.

17.   The expert system of Claim 15, wherein the system is configured to issue a report advisory report on future actions to be taken.

18.   The expert system of Claim 1 further comprising:

an operating system comprising an input for data relating to mother's condition and the fetus's condition wherein said data about the fetus includes the gestational age of the fetus.

19.   The expert system of Claim 18 wherein the gestational age is established by a diagnostic and screening method.

20.   The expert system of Claim 19 wherein the diagnostic and screening method comprises an ultrasonographic method, said ultrasonographic method including fetal biometer.

21.   The expert system of Claim 1, wherein the system is embedded into a diagnostic and screening device.

22.   The expert system of Claim 24, wherein the diagnostic and screening device comprises any one of:

an ultrasound pattern recognition device;

a genetic testing device;

a genetic counseling system;

a device for biochemical testing; or

a magnetic resonance device.

23.   The expert system of Claim 1, wherein the at least one database of pregnancy health complications comprises a database comprising the human genome.

24.   The expert system of Claim 23, wherein the system comprising the at least one database of pregnancy health complications is operatively connected to the database comprising the human genome.

25.   The expert system of Claim 1, wherein the system is accessible online.

26.   The expert system of Claim 1, wherein the inputted diagnostic and screening data includes data inputted in response to a prompt generated by said system.

27.   The expert system of Claim 1, wherein the system is comprises feature extraction or reverse feature extraction.

28.   The expert system of Claim 9, wherein the intelligent agent comprises at least one algorithm configured to process a plurality of values including:

the incidence of a syndrome at birth;

the incidence of the syndrome during gestation by week of the gestation period;

the incidence of at least one sign or marker for each syndrome at birth;

the incidence of the at least one sign or marker during gestation by week of the gestation period;

the incidence of any association of the signs or markers at birth;

the incidence of the association of sign or markers during gestation by week of the gestation period;

classification of the at least one sign or marker as main, secondary, or rare with respect to a syndrome at birth;

classification of the at least one sign or marker as main, secondary, or rare with respect to a syndrome during gestation by week of the gestation period; or

classification of each at least one said sign or marker by at least one natural history type.

29.   The expert system of Claim 9, wherein the intelligent agent comprises an algorithm configured to apply to time oriented data of a plurality of signs or markers such that the maximum percentage of a plurality of syndromes associated with said signs or markers are captured from a minimum number of markers.

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30.   The expert system of Claim 29, wherein the system is operatively connected to a jog dial

selector with programmable memory, said jog dial being adapted to adjust the number of the

plurality of signs or markers such that a higher maximum percentage of said plurality of syndromes

are captured.

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